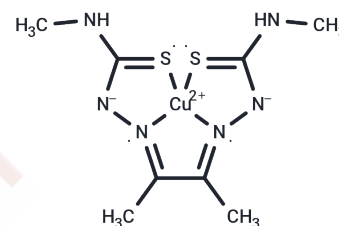


## CuATSM

## Chemical Properties

CAS No. :	68341-09-3
Formula:	C <sub>8</sub> H <sub>14</sub> CuN <sub>6</sub> S <sub>2</sub>
Molecular Weight:	321.92
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	CuATSM is a cell-permeable copper complex and PET tracer for selective hypoxia imaging. It also exhibits neuroprotective potential in ALS and Parkinson's disease by mitigating oxidative damage.
Targets(IC50)	Others
In vitro	In vitro, CuATSM (1 nM-1 μM) demonstrates potent anti-ferroptotic activity. The mechanism involves the complex acting as a radical-trapping antioxidant to block the chain reaction of lipid peroxidation within cell membranes [1].
In vivo	In an ischemic stroke mouse model (tMCAO), a single intravenous injection of 1.5 mg/kg CuATSM significantly reduced cerebral infarction volume and exerted neuroprotective effects [2].

## Solubility Information

Solubility	DMF: 2 mg/mL (6.21 mM),Sonication is recommended. DMSO:PBS (pH 7.2)(1:9): 0.1 mg/mL (0.31 mM),Sonication is recommended. DMSO: 1.6 mg/mL (4.97 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	3.1064 mL	15.5318 mL	31.0636 mL
5 mM	0.6213 mL	3.1064 mL	6.2127 mL
10 mM	0.3106 mL	1.5532 mL	3.1064 mL
50 mM	0.0621 mL	0.3106 mL	0.6213 mL

---

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Jain A K, Gupta V K, Singh L P, et al. Chelating ionophore based membrane sensors for copper (II) ions[J]. Talanta, 2005, 66(5): 1355-1361.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481